

Attorney's Docket: 1999DE507
Serial No.: 10/070,071
Art Unit: 1623

REMARKS

The Office Action mailed September 4, 2003, has been carefully considered together with each of the references cited therein. The amendment and remarks presented herein are believed to be fully responsive to the Office Action. The amendment made herein is fully supported by the Application as originally filed. No new matter has been added. Accordingly, reconsideration of the present Application in view of the above amendment and following remarks is respectfully requested.

CLAIM STATUS

Claims 1-18 are pending in this Application. By this Amendment, claim 1 has been amended, while claim 9 has been cancelled.

Claim Rejections Under 35 USC § 103

Claims 1-11 stand rejected under 35 USC § 103(a) as being unpatentable over Traill et al. (US Patent No. 1,943,461) in view of Savage (US Patent No. 3,728,331). This rejection is respectfully overcome.

Applicant's invention, as defined by independent claim 1, as amended, defines a process for the depolymerization of hot water-coagulable cellulose ethers by hydrolytic degradation by means of acids. The process includes using at least one oxidizing agent in an amount of between 0.01 to 5% by weight.

The Office, in support of its rejection, contends that Applicant's claimed invention "differ from the process of Traill et al. patent by claiming the addition of at least one oxidizing agent to the aqueous slurry" but that "the Savage patent shows the use of hydrogen peroxide."

Savage, in column 2, lines 9 and 10 and column 3, lines 10-19 disclose the use of hydrogen peroxide in a concentration of 10-50 weight percent aqueous solution.

A § 103 rejection requires the reference, or reference combination, to disclose each and every element of a claim. As neither Traill et al. nor Savage, alone and in combination, teach or disclose the addition of an oxidizing agent in the prescribed range recited in claim 1, it is respectfully contended that Applicant's invention, as

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defined by independent claim 1, and all claims depending therefrom, are not made obvious by any combination of the Traill et al. and Savage.

Claims 12-18 stand rejected under 35 USC § 103(a) as being unpatentable over Kobayashi et al. (European Patent No. 497,985) in view of Savage (US Patent No. 3,728,331). Applicant respectfully traverses this rejection.

With respect to claim 11, as it indirectly depends from claim 1, for at least the reasons advanced with respect to the 35 USC § 103(a) rejection of Traill et al. in view of Savage, it is respectfully urged that claim 11 is not made obvious by any combination of Kobayashi et al. in view of Savage, as neither reference discloses, teaches or intimates the use of an oxidative agent in the range of 0.05% to 5% by weight.

Concerning independent claim 13, Applicant claims a methylhydroxypropylcellulose, with a particle size distribution in which the proportion of particles with a size of less than 125 microns does not exceed 50%.

The Office justifies its rejection under § 103 by stating:

The methylhydroxypropylcellulose of the instantly claimed invention differ from the methylhydroxypropylcellulose of the Kobayashi EP patent by claiming that the methylhydroxypropylcellulose has a particle size distribution in which the proportion of particles with a size of less than 125 μm does not exceed 50%. However, the Savage patent, which discloses cellulose ethers including hydroxypropylmethyl cellulose (see column 5, line 16), suggests that cellulose ether having a particle size finer than about 20 mesh U.S. standard screen (850 μm) is well known in the art. The Savage patent discloses cellulose ethers for use in a variety of industrial applications.

The Office then concludes:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the hydroxypropylmethyl cellulose having a particle size of about 50 μm in the Kobayashi EP patent with a hydroxypropylmethyl cellulose having a particle size finer than about 20 mesh in view of the recognition in the art, as evidenced by the Savage patent, that use of the hydroxypropylmethyl cellulose having a particle size finer than 20 mesh is applicable to a variety of industrial applications.

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It is Applicant's respectful position that the Office has not established a *prima facie* case of obviousness of the present claims over Kobayashi in view of Savage. Specifically, Applicant submits that the prior art fails to provide motivation for one with ordinary skill in the art to arrive at Applicant's invention. Furthermore, assuming *arguendo*, one with ordinary skill in the art would be motivated to make the combination as proposed by the Office, one with ordinary skill in the art would necessarily first have to abandon the teachings of the Kobayashi EP patent and thereby would have an express disincentive to make the combination proffered by the Office.

An examination of the Kobayashi EP patent clearly discloses that the average particle size of 50 μm is central to its process. As stated on page 4, lines 48-53 of the EP patent:

Furthermore, the inventors of this invention have taken note of the time required for the polymerization process as a measure for the modification of the cellulose ether through oxidation. If the cellulose ether having a high degree of polymerization is finely polymerized to an average particle size in the order of 50 μm , the resulting powder has good handling properties, an improved solubility and good handling properties (fluidability of the powder) during the subsequent hydrolysis.

Additionally, on page 5, lines 16-18, the EP patent states:

The cellulose ether having a high degree of polymerization which is pulverized into powder having an average particle size of the order of 50 μm provides a cellulose ether having a low degree of polymerization and an improved whiteness by depolymerizing the same in accordance with the known method.

From these teachings, it is readily apparent that the Kobayashi et al. reference considers critical the average particle size of the cellulose ether as being on the average of 50 μm . In consequence, one with ordinary skill in the art, contemplating the modification as advanced by the Office, would first necessarily have to abandon teachings of the Kobayashi et al. reference to even consider employing the larger particle size disclosed by the Savage patent.

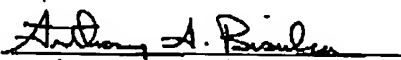
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Simply put, it is Applicant's position that the Kobayashi et al. reference specifically teaches away from the substitution of a larger particle size as is advanced by the Office. Hence, one with ordinary skill in the art having a knowledge of both the Kobayashi et al. and Savage reference would find no motivation therein to substitute the larger particle size disclosed by Savage in the cellulose material of Kobayashi et al. It is clear that a *prima facie* case of obviousness mandates that the teaching or suggestion to make the claimed combination, and the reasonable expectation of success, must both be found in the prior art, and not based on applicant's disclosure. In view of the fact that one with ordinary skill in the art would not be motivated to alter the particle size advanced by Kobayashi et al., Applicant is of the opinion that any motivation necessary to arrive at the claimed invention is the result of impermissible hindsight gained by a knowledge of Applicant's disclosure. For these reasons, Applicant courteously requests reconsideration and withdrawal of the § 103 rejection.

As the total number of claims does not exceed the number of claims originally paid for, no fee is believed due. However if an additional fee is required, the Commissioner is hereby authorized to credit any overpayment or charge any fee deficiency to Deposit Account No. 03-2060.

In view of the forgoing amendments and remarks, the present application is believed to be in condition for allowance, and reconsideration of it is requested. If the Examiner disagrees, he is requested to contact the attorney for Applicant at the telephone number provided below.

Respectfully submitted,


Anthony A. Bisulca
Attorney for Applicant
Registration No. 40,913

(CUSTOMER NUMBER 25,255)

Clariant Corporation
Industrial Property Department
4000 Monroe Road
Charlotte, North Carolina 28205
Phone: (704) 331-7151
Fax: (704) 331-7707